

**A Purely Technical Explanation Version of the Establishment of a
Dialectical Logic Symbol System: Inspired by Hegel's Logic and
Buddhist Philosophy**

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Abstract

This is a condensed and supplementary explanation of my previously submitted preprint, “Establishment of a Dialectical Logic Symbol System: Inspired by Hegel’s Logic and Buddhist Philosophy.” The focus here is solely on demonstrating the technical correctness and operational mechanics of the dialectical logic symbol system. It provides a detailed account of how the system functions through geometric symmetry, logical transformations, and symbolic operations. This explanation is designed to clarify the technical foundation of the system, while omitting the broader philosophical discussions covered in the original preprint.

Basic Symbols of Dialectics

$\dot{\epsilon}$ represents “self”

\equiv represents “affirmation”

\ddot{o} represents “being”

\emptyset represents “nothing”

\neg represents “negation”

\cdot represents “abstraction or concretization”

Basic Concepts and Mastery

1. Within this dialectical logic symbol system, *an item* that can be inserted, such as an “ x ”, must be considered as “*absolute*,” “*non-composite*,” and “*indivisible*.”
2. Items are neither *propositions* nor *predicates*. If I had to step outside the system to explain what items are, I would say they are *names*. These names, through the system’s operations, can become “*nouns, adjectives, adverbs, and definitions*.”
3. I believe that there is a *mechanism* that can transform my dialectical logic symbol system into the form of *classical logic*, but I am still researching it.

The structure of the basic logical formula

We introduce a symbol \sim , which *lacks* specific logical meaning, to *decompose* double negation into the following formula:

$$\neg \cdot \sim \cdot \neg$$

The symbol \sim divides the abstraction of negation $\neg \cdot$ and the concretization of negation $\cdot \neg$ into *left* and *right* sides, thus generating two logical positions: the position between $\cdot \neg$ and \sim is called the “*first logic position*,” and the position between $\neg \cdot$ and \sim is called the “*second logic position*.”

1. Doctrine of Being' logical structure

$$\neg \cdot \check{\circ} \sim x \cdot \neg$$

The ‘ \cdot ’ symbol represents “*abstraction*” or “*concretization*.” For an item x , we can abstract it to become $x \cdot$ (placed to the left of “ \cdot ”); or it can be concretized to become $\cdot x$ (placed to the right of “ \cdot ”). Here, $x \cdot$ signifies that the function of X in thought is *suppressed*; whereas $\cdot x$ indicates that the function of x in thought is *expressed*.

2. The Doctrine of Essence: Reflective Categories' logical structure

$$x \neg \cdot \check{\circ} \sim y \cdot \neg$$

There is an additional logic position here, called the *third logic position*, which is to the left of $\neg \cdot$.

3. The Doctrine of Essence: Categories of Actualities' logical structure

$$\equiv x \neg \cdot \check{\circ} \sim y \cdot \neg$$

There is an additional logic position here, called *the fourth logic position*, which is to the left of \equiv .

Explanation of the operations: Simple ‘*geometric symmetry*’

ensures the *correctness* of these operations.

I will now demonstrate how all categorical operations are based on the correctness of *geometric symmetry*, from the simplest, *the Category of Becoming*, to the most complex, *the Category of The Notion*:

The Category of Becoming

BC

$$\neg \cdot \sim \check{\circ} \cdot \neg$$

$$\neg \cdot \check{\circ} \sim \cdot \neg$$

$$\neg \cdot \emptyset \sim \cdot \neg$$

$$\neg \cdot \sim \emptyset \cdot \neg$$

$$\neg \cdot \sim \check{\circ} \cdot \neg$$

There are *five* logical formulas above, thus including *four* logical transformations. The geometric symmetry is reflected in the fact that the *first* logical formula and the *fifth* logical formula are identical, both being $\neg \cdot \sim \check{\circ} \cdot \neg$.

The Category of Determinate Being

DB(x)

$$\neg \cdot \check{\circ} \sim x \cdot \neg$$

$$\neg \cdot x \sim \check{\circ} \cdot \neg$$

$$\neg \cdot x \sim \emptyset \cdot \neg$$

$$\neg \cdot \emptyset \sim \cdot \neg$$

$$\neg \cdot \check{\circ} \sim \cdot \neg$$

DB () is the second category following BC, and like BC, there are *five* logical formulas above, thus including *four* logical transformations.

The difference from BC is that in DB (), the *first* logical formula and the *fifth* logical formula *aren't identical*. The *fifth* logical formula $\neg \cdot \check{\circ} \sim \cdot \neg$ is *missing* an item x, while the first logical formula $\neg \cdot \check{\circ} \sim x \cdot \neg$ contains an item x. The geometric symmetry here is only reflected in the fact that the *symbol* $\check{\circ}$ remains in *the second logic position* in both the *first and fifth* logical formulas.

Therefore, in my *manuscript*, I state that DB () *is not* a category that can return to itself by relying *solely on itself*. It requires items (hypothetically denoted as y)

generated from other categories to *be inserted into the fifth* logical formula $\neg \cdot \check{o} \sim \cdot \neg$ of DB (), allowing it to *return to the first* logical formula $\neg \cdot \check{o} \sim y \cdot \neg$ and thus reactivate the operations of DB (). In this way, DB () appeals to the *geometric symmetry* of the *entire system*.

In fact, the following categories, up until *the Category of Actuality*, are all similar to DB () in that their *final logical formula* requires an item to be inserted from other categories' transformed items. However, the categories *after the Category of Actuality* can fully return to themselves relying *solely on their own structure*, manifesting *geometric symmetry* independently.

The Doctrine of Essence: Reflective Categories

The Category of Identity

ID(x)

$x \neg \cdot \check{o} \sim \cdot \neg$

$\check{o} \neg \cdot x \sim \cdot \neg$

or

$\check{o} \neg \cdot x \sim \cdot \neg$

$x \neg \cdot \check{o} \sim \cdot \neg$

The Category of Identity is the *first category* to utilize *the third logic position*. The significance of the third logic position is that it is *not subject to* the mutual abstraction and concretization relative to the *negation* \neg , so the function of ID(x) is to allow *free interchange* between items in the second and third logic positions across two lines of logical formulas, *without transforming \check{o} into \emptyset* .

This *free interchangeability* of ID () itself can later *become an operator* in more complex categories. The following is a demonstration of the usage of this operator in subsequent cases:

$x \neg \cdot y \sim \emptyset \cdot \neg$

$$y \neg \cdot x \sim \emptyset \cdot \neg \text{ ID}$$

On the **right** side of the second logical formula, ID is indicated, showing that the structure $y \neg \cdot x \sim \emptyset \cdot \neg$ is the result of applying ID as **an operator** to $x \neg \cdot y \sim \emptyset \cdot \neg$.

The Category of Opposition

OPP(x)

$$x \neg \cdot \check{\emptyset} \sim \cdot \neg$$

$$\neg \cdot x \sim \check{\emptyset} \cdot \neg$$

$$\neg \cdot \check{\emptyset} \sim x \cdot \neg$$

$$\check{\emptyset} \neg \cdot x \sim \cdot \neg$$

- Items in the third and second logic positions are moved **backward** to the second and first logic positions, respectively.
- The first two logical formulas of DB () **interchange** the second and first logic positions.
- After the interchange, items are **moved to** the third and second logic positions in a **forward sequence** instead of proceeding to the third formula of DB ().
- As long as an items like x does not continuously occupy the second and first logic positions in relation to \emptyset across **three consecutive formulas**, $\check{\emptyset}$ **will not be transformed into \emptyset** .

The Category of The Thing Itself

TIF (x, y)

$$\check{\emptyset} \neg \cdot x \sim y \cdot \neg$$

$$\check{\emptyset} \neg \cdot y \sim x \cdot \neg$$

The category of The Thing Itself (TIF) is extremely important because it explains how the items in this logic system are generated. I will explain the process below.

In the category of The Thing Itself, we have inserted *a second item, y*, thus filling the first to third logic positions. Since \breve is in the third logic position here, it is not affected by \neg , and because the first two logic positions are already filled, $\breve\neg\cdot x\sim y\cdot\neg$ and $\breve\neg\cdot y\sim x\cdot\neg$ represent x and y together forming *an indivisible, concrete whole* with negation \neg , engaging in a mutual abstraction and concretization process across the first two logic positions.

Besides being in the ID relation with x and y , \breve also, due to its *juxtaposed* position with the aforementioned *indivisible wholeness*, has the following property:

$$\breve\neg\cdot x\sim y\cdot\neg$$

\breve

and

$$\breve\neg\cdot y\sim x\cdot\neg$$

\breve

The above indicates that both $\breve\neg\cdot x\sim y\cdot\neg$ and $\breve\neg\cdot y\sim x\cdot\neg$ can be transformed into \breve . However, this is *not a simplification*, but rather a *true result*. Since it is *impossible* to correctly *analyze* x or y in the first two negation-related logic positions, *nor* is it possible to analyze just the negation \neg , it is precisely this unanalyzable and inexpressible nature of the *wholeness* of the first two logic positions that makes \breve in the third logic position the *only expressible symbol*.

This property is so simple and important that I have also set it as *an operator*, and below is how this operator functions:

$$\breve\neg\cdot x\sim y\cdot\neg \rightarrow \breve$$

and

$$\breve\neg\cdot y\sim x\cdot\neg \rightarrow \breve$$

And the logical transformations of this property are *reversible*, meaning:

\breve

$$\breve\neg\cdot x\sim y\cdot\neg$$

$$\checkmark \neg \cdot y \sim x \cdot \neg$$

Lastly, when we apply the **ID** operation to either $\checkmark \neg \cdot y \sim x \cdot \neg$ or $\checkmark \neg \cdot x \sim y \cdot \neg$:

$$\checkmark$$

$$\checkmark \neg \cdot x \sim y \cdot \neg$$

$$\checkmark \neg \cdot y \sim x \cdot \neg$$

$$y \neg \cdot \checkmark \sim x \cdot \neg \text{ID} \rightarrow y$$

or

$$\checkmark$$

$$\checkmark \neg \cdot y \sim x \cdot \neg$$

$$\checkmark \neg \cdot x \sim y \cdot \neg$$

$$x \neg \cdot \checkmark \sim y \cdot \neg \text{ID} \rightarrow x$$

In this way, we can **generate** items such as x or y from **nothing**, and the items transformed through this arrow $\rightarrow x$ process, I call “**free items**,” meaning they **can be substituted** into the logic positions of either themselves or other categories.

All the categories that can be used as operators **have now been introduced**. Therefore, the following categories will not have much textual explanation, and I will only demonstrate their **geometric symmetry**.

The Category of Matter

$$MA(x)$$

$$x \neg \cdot \checkmark \sim y \cdot \neg \rightarrow x$$

$$x \cdot \neg \cdot y \sim \checkmark \cdot \neg$$

$$x \neg \cdot y \sim \emptyset \cdot \neg$$

$$x \cdot \neg \cdot \emptyset \sim \cdot \neg$$

$$x \neg \cdot \checkmark \sim \cdot \neg$$

In MA (), there are also **five** logical formulas above, thus including **four** logical transformations. The difference between MA () and DB () is that DB () uses negation as the **axis** for its return to itself, while MA () uses x as **its axis**. This return to itself can be **simply described** as “ $x \rightarrow x \rightarrow x$,” this simple description reflects the **geometric symmetry** of this category.

The Category of Form

FM (x, y)

$$x \neg \cdot \check{\sim} y \cdot \neg \rightarrow x$$

$$x \cdot \neg \cdot y \sim \check{\sim} \cdot \neg$$

$$y \neg \cdot x \sim \emptyset \cdot \neg \text{ ID } \rightarrow y$$

$$y \cdot \neg \cdot \emptyset \sim \cdot \neg$$

$$y \neg \cdot \check{\sim} \cdot \neg$$

FM () is simply a category generated by **applying ID** to the **third** logical formula of MA (), that is, applying ID to $x \neg \cdot y \sim \emptyset \cdot \neg$ to produce $y \neg \cdot x \sim \emptyset \cdot \neg \text{ ID}$.

The Category of Force

F (x, y)

FM (x, y)

$$x \neg \cdot \check{\sim} y \cdot \neg \rightarrow x$$

$$x \cdot \neg \cdot y \sim \check{\sim} \cdot \neg$$

$$y \neg \cdot x \sim \emptyset \cdot \neg \rightarrow y$$

$$y \cdot \neg \cdot \emptyset \sim \cdot \neg$$

$$y \neg \cdot \check{\sim} \cdot \neg$$

FM (y, x)

$$y \cdot \neg \cdot \check{\circ} \sim x \cdot \neg \rightarrow y$$

$$y \cdot \neg \cdot x \sim \check{\circ} \cdot \neg$$

$$x \cdot \neg \cdot y \sim \emptyset \cdot \neg \rightarrow x$$

$$x \cdot \neg \cdot \emptyset \sim \cdot \neg$$

$$x \cdot \neg \cdot \check{\circ} \sim \cdot \neg$$

- The category of force $F(x, y)$ is a *composite category* made of FM (x, y) and FM (y, x) .
- The structure involves *inserting the free item x* from FM (x, y) into its *last* logical formula, forming FM (y, x) .
- The *free item y* from FM (y, x) is then *inserted* into its own *last* logical formula, forming FM (x, y) again.
- This *cyclic insertion* of x or y into the last logical formula represents the self-returning motion of x or y .

This *cyclical operation* reflects the *geometric symmetry* of this category , and to describe this cycle simply, it can be represented as: “ $x \rightarrow y \rightarrow x$ ”.

The Category of Appearance

AP (x, y)

TIF (x, y)

$$\check{\circ} \cdot \neg \cdot x \sim y \cdot \neg \rightarrow \check{\circ}$$

$$\check{\circ} \cdot \neg \cdot y \sim x \cdot \neg$$

MA (y, x)

$$y \cdot \neg \cdot \check{\circ} \sim x \cdot \neg \rightarrow y$$

$$y \cdot \neg \cdot x \sim \check{\circ} \cdot \neg$$

$$y \cdot \neg \cdot x \sim \emptyset \cdot \neg$$

$$y \cdot \neg \cdot \emptyset \sim \cdot \neg$$

$$y \cdot \neg \check{o} \sim \cdot \neg$$

TIF (y, x)

$$\check{o} \cdot \neg y \sim x \cdot \neg \rightarrow \check{o}$$

$$\check{o} \cdot \neg x \sim y \cdot \neg$$

MA (x, y)

$$x \cdot \neg \check{o} \sim y \cdot \neg \rightarrow x$$

$$x \cdot \neg \cdot y \sim \check{o} \cdot \neg$$

$$x \cdot \neg y \sim \emptyset \cdot \neg$$

$$x \cdot \neg \cdot \emptyset \sim \cdot \neg$$

$$x \cdot \neg \check{o} \sim \cdot \neg$$

AP (x, y) is also a *composite category* that demonstrates the cyclicity of x and y, but it is composed of TIF () and MA (). The *geometric symmetry* of its cycle, if described simply, is: “ $x \rightarrow \check{o} \rightarrow y \rightarrow \check{o} \rightarrow x$.” However, unlike F (), it involves *uncertainty* between the “immediacy” and “mediacy” of \check{o} and the principle of “TIF () $\rightarrow \check{o}$.”

MA2(x, y)

$$y \cdot \neg x \sim \check{o} \cdot \neg \rightarrow y$$

$$x \cdot \neg y \sim \check{o} \cdot \neg \text{ ID } \rightarrow x$$

$$x \cdot \neg \cdot \check{o} \sim y \cdot \neg$$

$$x \cdot \neg \cdot \emptyset \sim \cdot \neg$$

$$x \cdot \neg \cdot \sim \emptyset \cdot \neg$$

$$x \cdot \neg \cdot \sim \check{o} \cdot \neg$$

MA2(x, y) is a special category, and the foundation of this category lies in the following:

1. \checkmark can appear *arbitrarily*.
2. \checkmark should be able to *generate items*, becoming $\checkmark \neg \cdot x \sim y \cdot \neg$.
3. $\checkmark \neg \cdot x \sim y \cdot \neg \rightarrow x \neg \cdot \checkmark \sim y \cdot \neg$ ID.
4. $x \neg \cdot \checkmark \sim y \cdot \neg \rightarrow x$.
5. x is a symbol as *simple* as \checkmark .
6. x can *also* appear *arbitrarily*.
7. x can *accompany a logical structure* filled in the first and second logic positions, thus transforming into $x \neg \cdot y \sim \checkmark \cdot \neg$.

Additionally, it is the *only reflective category* within the doctrine of essence that can return to itself purely on its own, and this is achieved by substituting the y , transformed from $MA2(x, y)$, into the last logical formula:

MA2(y)

$$x \neg \cdot y \sim \checkmark \cdot \neg \rightarrow x$$

$$y \neg \cdot x \sim \checkmark \cdot \neg \text{ ID } \rightarrow y$$

$$y \cdot \neg \cdot \checkmark \sim x \cdot \neg$$

$$y \neg \cdot \emptyset \sim \cdot \neg$$

$$y \cdot \neg \cdot \sim \emptyset \cdot \neg$$

$$y \neg \cdot \sim \checkmark \cdot \neg$$

Additionally, its significance lies in the fact that it can serve as a ***Linking Formula*** between the *reflective category* in the doctrine of essence and the *category of actuality*.

Linking Formula1

CRA (x, y)

$$x \neg \cdot y \sim \checkmark \cdot \neg \rightarrow x$$

$$x \cdot \neg \cdot \check{\circ} \sim y \cdot \neg$$

$$x \neg \cdot \emptyset \sim y \cdot \neg$$

$$\equiv x \neg \cdot \check{\circ} \sim y \cdot \neg \rightarrow \equiv x$$

The last logical formula, $\equiv x \neg \cdot \check{\circ} \sim y \cdot \neg$, is formed by **adding** \equiv in front of $x \neg \cdot \emptyset \sim y \cdot \neg$ and then transforming \emptyset into $\check{\circ}$ within the formula. $\equiv x \neg \cdot \check{\circ} \sim y \cdot \neg$ represents the structure of the *category of actuality*.

The Doctrine of Essence: The Category of Actuality

The Category of Actuality Itself

$$AC(x, y)$$

$$\equiv x \neg \cdot \check{\circ} \sim y \cdot \neg \rightarrow \equiv x$$

$$x \equiv y \neg \cdot \check{\circ} \sim \cdot \neg$$

$$\equiv x \neg \cdot y \sim \check{\circ} \cdot \neg$$

$$\equiv x \cdot \neg \cdot y \sim \emptyset \cdot \neg$$

$$\equiv x \neg \cdot \emptyset \sim \cdot \neg$$

$$x \equiv \neg \cdot \check{\circ} \sim \cdot \neg$$

$$\equiv x \neg \cdot \check{\circ} \sim a \cdot \neg$$

By adding \equiv to the **far left** of the logical formula, we gain **an additional logic position** to the left of \equiv , called **the fourth logic position**. This increases the **range** of logical operations. The overall **geometric symmetry** of $AC(x, y)$ can be simply described as “ $\equiv x \rightarrow x \equiv \rightarrow \equiv x \cdot \rightarrow x \equiv \rightarrow \equiv x$,” and the greatest significance of this category lies in the fact that it **generates a new item, a**, within its own operations.

In the Category of Actuality, there are three additional categories. I will list them here without further explanation, but essentially, they involve **using ID to change the**

direction of operations; otherwise, the explanation would be too lengthy:

Category of Possibility 1

POS1(x, y)

$$\equiv x \neg \cdot \check{\circ} \sim y \cdot \neg \rightarrow \equiv x$$

$$x \equiv \check{\circ} \neg \cdot y \sim \cdot \neg$$

$$x \equiv y \neg \cdot \check{\circ} \sim \cdot \neg \text{ ID}$$

$$y \equiv x \neg \cdot \check{\circ} \sim \cdot \neg \text{ ID}$$

$$\equiv y \neg \cdot x \sim \check{\circ} \cdot \neg$$

$$\equiv y \cdot \neg \cdot \check{\circ} \sim x \cdot \neg$$

$$\equiv y \neg \cdot \emptyset \sim x \cdot \neg$$

$$y \equiv \neg \cdot \sim \emptyset \cdot \neg$$

$$\equiv y \neg \cdot \sim \check{\circ} \cdot \neg$$

Category of Possibility 2

POS2(x, y)

$$\equiv x \neg \cdot \check{\circ} \sim y \cdot \neg \rightarrow \equiv x$$

$$x \equiv \check{\circ} \neg \cdot y \sim \cdot \neg$$

$$x \equiv y \neg \cdot \check{\circ} \sim \cdot \neg \text{ ID}$$

$$y \equiv x \neg \cdot \check{\circ} \sim \cdot \neg \text{ ID}$$

$$y \equiv \check{\circ} \neg \cdot x \sim \cdot \neg \text{ ID}$$

$$\equiv y \neg \cdot \check{\circ} \sim x \cdot \neg$$

$$\equiv y \cdot \neg \cdot x \sim \check{\circ} \cdot \neg$$

$$\equiv y \neg \cdot x \sim \emptyset \cdot \neg$$

$$y \equiv \neg \cdot \emptyset \sim \cdot \neg$$

$$\equiv y \neg \cdot \check{\emptyset} \sim \cdot \neg$$

The special feature of the Category of Possibility is that its final logical formula is *missing* one item.

Category of Contingency

CONT (x, y)

$$\equiv y \neg \cdot x \sim \check{\emptyset} \cdot \neg \rightarrow \equiv y$$

$$\equiv x \neg \cdot y \sim \check{\emptyset} \cdot \neg \text{ ID} \rightarrow \equiv x$$

$$x \equiv y \neg \cdot \check{\emptyset} \sim \cdot \neg$$

$$\equiv x \neg \cdot \check{\emptyset} \sim y \cdot \neg$$

$$\equiv x \cdot \neg \cdot \emptyset \sim y \cdot \neg$$

$$\equiv x \cdot \neg \cdot \sim \emptyset \cdot \neg$$

$$x \equiv \neg \cdot \sim \check{\emptyset} \cdot \neg$$

$$\equiv x \neg \cdot b \sim \check{\emptyset} \cdot \neg \rightarrow \equiv x$$

$$\equiv b \neg \cdot x \sim \check{\emptyset} \cdot \neg \rightarrow \equiv b$$

The Category of Contingency is the *final* category within the category of actuality. Its characteristic is that it *can also return* to itself. Another important feature is that it can be used *to connect* commonly known reflective categories:

CRA2(x, y)

$$x \neg \cdot \check{\emptyset} \sim y \cdot \neg \rightarrow x$$

$$x \cdot \neg \cdot x \sim \check{\emptyset} \cdot \neg$$

$$x \neg \cdot y \sim \emptyset \cdot \neg \text{ ID} \rightarrow x$$

$$\equiv x \neg \cdot y \sim \check{\emptyset} \cdot \neg$$

The *connecting point* is the *third* logical formula of $MA(x)$, $x \neg \cdot y \sim \emptyset \cdot \neg$ ID. By adding \equiv to it, $x \neg \cdot y \sim \emptyset \cdot \neg$ ID is transformed into the *last* logical formula of CRA2(x, y), $\equiv x \neg \cdot y \sim \check{\emptyset} \cdot \neg$.

Category of Substantial Relationships

The Category of Substantial Relationships introduces *the final symbol* in the dialectical logic symbol system, “*self ě*.” ě is predefined as “both *immediacy* and *mediacy*, and even as *indeterminate or universal*.” This category is unique because none of the four Categories of Substantial Relationships have their first and last logical formulas’ *structure* identical. I believe this reflects the nature of “self ě,” borrowing a concept from *Buddhism*, which is that the nature of the self lies in *transforming our world* and *changing actualities*.

Among the four Categories of Substantial Relationships, only “self ě” itself is considered to possess *ultimate geometric symmetry* in its self-returning nature, *regardless of* how its corresponding structure of actuality is completely transformed by the movement of “self ě.”

The structure of actuality, $\equiv x \neg \cdot \check{\emptyset} \sim y \cdot \neg$, can only return to itself through the *continuous use* of two different Categories of Substantial Relationships. This belongs to the “inferential part” of the dialectical logic symbol system. Essentially, the alternating use of *S ()* and *S2 ()*, along with *SID2 ()* and *SID1 ()*, allows the structures of actuality to return to themselves reciprocally.

The *geometric symmetry* of the four Categories of Substantial Relationships can all be simply described as: “ $\equiv \rightarrow \check{\equiv} \rightarrow \check{\cdot} \rightarrow \check{x} \rightarrow \check{\cdot} \rightarrow \check{\equiv} \rightarrow \check{\cdot} \rightarrow \equiv$.”

The detailed explanation and significance of the Category of Substantial Relationships are fascinating and rich, but the main focus here is to demonstrate *geometric symmetry* and methodology. For more details, please refer to my manuscript.

Relationship of Substantiality S ()

S (x, y)

$$\equiv x \neg \cdot \check{\circ} \sim y \cdot \neg \rightarrow \equiv x$$

$$\dot{\epsilon} \equiv x \neg \cdot y \sim \check{\circ} \cdot \neg \rightarrow \dot{\epsilon} \equiv x$$

$$\dot{\epsilon} \cdot \equiv x \neg \cdot y \sim \emptyset \cdot \neg \rightarrow \dot{\epsilon} \cdot \equiv x$$

$$\dot{\epsilon} \cdot x \equiv \neg \cdot \emptyset \sim \cdot \neg$$

$$\dot{\epsilon} \cdot \equiv x \neg \cdot \check{\circ} \sim \cdot \neg$$

$$\dot{\epsilon} \equiv x \neg \cdot \sim \check{\circ} \cdot \neg$$

$$\equiv x \neg \cdot a \sim \check{\circ} \cdot \neg$$

The final logical formula, $\equiv x \neg \cdot a \sim \check{\circ} \cdot \neg$, is the structure of the first logical formula of ***CONT ()***, so the CONT () category can also be said to *originate* from S (). Of course, within the scope of The Category of Actuality, we can also substitute items into ***POS1()*** to form CONT ().

Relationship of Substantiality SID1()

SID1(a, x)

$$\equiv \check{\circ} \neg \cdot a \sim x \cdot \neg$$

$$\dot{\epsilon} \equiv \check{\circ} \neg \cdot x \sim a \cdot \neg \rightarrow \dot{\epsilon} \equiv \check{\circ}$$

$$\dot{\epsilon} \equiv x \neg \cdot \check{\circ} \sim a \cdot \neg ID \rightarrow \dot{\epsilon} \equiv x$$

$$\dot{\epsilon} \cdot \equiv x \neg \cdot a \sim \check{\circ} \cdot \neg$$

$$\dot{\epsilon} \cdot x \equiv \neg \cdot a \sim \emptyset \cdot \neg$$

$$\dot{\epsilon} \cdot \equiv x \neg \cdot \emptyset \sim \cdot \neg$$

$$\dot{\epsilon} \equiv x \neg \cdot \check{\circ} \sim \cdot \neg$$

$$\equiv x \neg \cdot \check{\circ} \sim b \cdot \neg$$

The key point I want to highlight about the *geometric symmetry* of SID1() is that

its final logical formula *is* the structure of the first logical formula of SID2(), and *vice versa*. Therefore, when we apply SID2() to the final logical formula of SID1(), we can *return* to the first logical formula of SID1().

Relationship of Substantiality SID2()

SID2(x, y)

$$\equiv x \neg \cdot \check{\circ} \sim y \cdot \neg \rightarrow \equiv x$$

$$\dot{\epsilon} \equiv x \neg \cdot y \sim \check{\circ} \cdot \neg \rightarrow \dot{\epsilon} \equiv x$$

$$\dot{\epsilon} \cdot \equiv x \neg \cdot y \sim \emptyset \cdot \neg \rightarrow \dot{\epsilon} \cdot \equiv x$$

$$\dot{\epsilon} \cdot x \equiv \neg \cdot \emptyset \sim \cdot \neg$$

$$\dot{\epsilon} \cdot \equiv x \neg \cdot \check{\circ} \sim \cdot \neg$$

$$\dot{\epsilon} \equiv x \neg \cdot \check{\circ} \sim a \cdot \neg$$

$$\dot{\epsilon} \equiv \check{\circ} \neg \cdot x \sim a \cdot \neg \text{ID}$$

$$\equiv \check{\circ} \neg \cdot a \sim x \cdot \neg$$

The key point I want to highlight about the *geometric symmetry* of SID2() is that its final logical formula *is* the structure of the first logical formula of SID1(), and *vice versa*. Therefore, when we apply SID1() to the final logical formula of SID2(), we can *return* to the first logical formula of SID2().

Relationship of Substantiality S2()

S2(x, c)

$$\equiv c \neg \cdot x \sim \check{\circ} \cdot \neg \rightarrow \equiv c$$

$$\equiv x \neg \cdot c \sim \check{\circ} \cdot \neg \rightarrow \equiv x$$

$$\dot{\epsilon} \equiv x \neg \cdot \check{\circ} \sim c \cdot \neg \rightarrow \dot{\epsilon} \equiv x$$

$$\dot{\epsilon} \cdot \equiv x \neg \cdot \emptyset \sim c \cdot \neg$$

$$\dot{\epsilon} \cdot x \equiv \neg \sim \emptyset \cdot \neg$$

$$\dot{\epsilon} \cdot \equiv x \neg \sim \check{\epsilon} \cdot \neg$$

$$\dot{\epsilon} \equiv x \neg \check{\epsilon} \sim \cdot \neg$$

$$\equiv x \neg \check{\epsilon} \sim d \cdot \neg$$

S2 () then transforms the structure of the first logical formula of **CONT ()** into the logical structure of **AC ()**, and its *geometric symmetry* is demonstrated in the fact that its final logical formula *is* the first logical formula of **S ()**, while the final logical formula of **S ()** is the first logical formula of **S2 ()**.

Category of Causality

CAUS (x, y)

$$\equiv x \neg \check{\epsilon} \sim y \cdot \neg \rightarrow \equiv x$$

$$\dot{\epsilon} \equiv x \neg y \sim \check{\epsilon} \cdot \neg \rightarrow \dot{\epsilon} \equiv x$$

$$x \equiv \dot{\epsilon} \neg y \sim \check{\epsilon} \cdot \neg \text{ ID} \rightarrow x \equiv \dot{\epsilon}$$

$$x \equiv y \neg \dot{\epsilon} \sim \check{\epsilon} \cdot \neg \text{ ID} \rightarrow x \equiv y$$

$$x \cdot \equiv y \neg \check{\epsilon} \sim \dot{\epsilon} \cdot \neg$$

$$x \cdot y \equiv \neg \emptyset \sim \dot{\epsilon} \cdot \neg$$

$$x \cdot \equiv y \neg \sim \emptyset \cdot \neg$$

$$x \equiv y \neg \sim \check{\epsilon} \cdot \neg$$

$$x \equiv \neg y \sim \check{\epsilon} \cdot \neg \text{ ID}$$

$$\equiv x \neg \check{\epsilon} \sim y \cdot \neg$$

The Category of Causality is a category that uses **ID** to *dismantle the “self $\dot{\epsilon}$ ”* during its operation. Its first logical formula, $\equiv x \neg \check{\epsilon} \sim y \cdot \neg$, and its final logical formula, $\equiv x \neg \check{\epsilon} \sim y \cdot \neg$, are *identical*.

When the following logical formulas of actualities occur between CAUS (x, y) and CAUS (y, x), x and y become “*mutually causal*”:

$$\equiv y \neg \cdot \check{\circ} \sim x \cdot \neg$$

$$\equiv \check{\circ} \neg \cdot y \sim x \cdot \neg$$

$$\equiv \check{\circ} \neg \cdot x \sim y \cdot \neg$$

$$\equiv x \neg \cdot \check{\circ} \sim y \cdot \neg$$

When x and y are thus set as “mutually causal,” thinking must enter the final category of the doctrine of essence, the category of reciprocity, abbreviated as RECI ().

The Category of Reciprocity

RECI (x, y)

$$\dot{\epsilon} \equiv x \neg \cdot \check{\circ} \sim y \cdot \neg$$

$$\dot{\epsilon} \equiv \check{\circ} \neg \cdot x \sim y \cdot \neg \text{ ID}$$

$$\dot{\epsilon} \cdot \equiv \check{\circ} \neg \cdot y \sim x \cdot \neg$$

$$\dot{\epsilon} \cdot \equiv y \neg \cdot \check{\circ} \sim x \cdot \neg \text{ ID}$$

$$\dot{\epsilon} \equiv y \neg \cdot x \sim \check{\circ} \cdot \neg$$

$$\dot{\epsilon} \equiv x \neg \cdot y \sim \check{\circ} \cdot \neg \text{ ID}$$

$$\dot{\epsilon} \cdot \equiv x \neg \cdot \check{\circ} \sim y \cdot \neg$$

$$\dot{\epsilon} \cdot \equiv \check{\circ} \neg \cdot x \sim y \cdot \neg \text{ ID}$$

$$\dot{\epsilon} \equiv \check{\circ} \neg \cdot y \sim x \cdot \neg$$

$$\dot{\epsilon} \equiv y \neg \cdot \check{\circ} \sim x \cdot \neg \text{ ID}$$

$$\dot{\epsilon} \cdot \equiv y \neg \cdot x \sim \check{\circ} \cdot \neg$$

$$\dot{\epsilon} \cdot \equiv x \neg \cdot y \sim \check{\circ} \cdot \neg \text{ ID}$$

$$\dot{\epsilon} \equiv x \neg \cdot \check{\circ} \sim y \cdot \neg$$

The Category of Reciprocity is a *perfectly cyclical* category composed of *twelve* logical formulas, achieved by *using ID alternately* at intervals.

The Category of The Notion

$N(\dot{\epsilon})$

$$\dot{\epsilon} \cdot \equiv \check{\circ} \neg \cdot x \sim y \cdot \neg$$

$$\dot{\epsilon} \cdot \dot{\epsilon} \equiv \emptyset \neg \cdot x \sim y \cdot \neg$$

$$\dot{\epsilon} \cdot \dot{\epsilon} \equiv \emptyset \neg \cdot y \sim x \cdot \neg$$

$$\dot{\epsilon} \cdot \dot{\epsilon} \equiv \emptyset \neg \cdot x \sim y \cdot \neg$$

$$\dot{\epsilon} \cdot \dot{\epsilon} \equiv \neg \cdot \emptyset \sim y \cdot \neg \text{ ID}$$

$$\dot{\epsilon} \cdot \equiv \dot{\epsilon} \neg \cdot \sim \emptyset \cdot \neg$$

$$\dot{\epsilon} \equiv \dot{\epsilon} \neg \cdot \sim \check{\circ} \cdot \neg$$

$$\dot{\epsilon} \equiv \dot{\epsilon} \cdot \neg \cdot \check{\circ} \sim \cdot \neg$$

$$\dot{\epsilon} \equiv \dot{\epsilon} \neg \cdot \emptyset \sim \cdot \neg$$

$$\dot{\epsilon} \equiv \emptyset \neg \cdot \sim \cdot \neg \text{ ID}$$

$$\dot{\epsilon} \neg \cdot \check{\circ} \sim \cdot \neg$$

$N(\dot{\epsilon})$ is the Category of The Notion, the *final category*. The substitutable item in this category is *the second $\dot{\epsilon}$* , which is introduced to *realize* the “*indistinguishability*” within the Category of Reciprocity.

The Identity of Self $\dot{\epsilon}$ and Being $\check{\circ}$

ID ($\dot{\epsilon}$)

$$\dot{\epsilon} \neg \cdot \check{\circ} \sim \cdot \neg$$

$$\check{\circ} \neg \cdot \dot{\epsilon} \sim \cdot \neg$$

Transition to Categories in the Doctrine of Being and Becoming

DB(Ė)

$$\neg \cdot \dot{\epsilon} \sim \check{\emptyset} \cdot \neg$$

$$\neg \cdot \check{\emptyset} \sim \dot{\epsilon} \cdot \neg$$

$$\neg \cdot \emptyset \sim \dot{\epsilon} \cdot \neg$$

$$\neg \cdot \sim \emptyset \cdot \neg$$

BC

$$\neg \cdot \sim \check{\emptyset} \cdot \neg$$

$$\neg \cdot \check{\emptyset} \sim \cdot \neg$$

$$\neg \cdot \emptyset \sim \cdot \neg$$

$$\neg \cdot \sim \emptyset \cdot \neg$$

$$\neg \cdot \sim \check{\emptyset} \cdot \neg$$

The Buddhist Category of Notion***NB(Ė)***

$$\dot{\epsilon} \cdot \equiv \check{\emptyset} \neg \cdot x \sim y \cdot \neg$$

$$\dot{\epsilon} \cdot \dot{\epsilon} \equiv \emptyset \neg \cdot x \sim y \cdot \neg$$

$$\dot{\epsilon} \cdot \dot{\epsilon} \equiv \emptyset \neg \cdot y \sim x \cdot \neg$$

$$\dot{\epsilon} \cdot \dot{\epsilon} \equiv \emptyset \neg \cdot x \sim y \cdot \neg$$

$$\dot{\epsilon} \cdot \dot{\epsilon} \equiv \neg \cdot \emptyset \sim y \cdot \neg \text{ ID}$$

$$\dot{\epsilon} \cdot \equiv \dot{\epsilon} \neg \cdot \sim \emptyset \cdot \neg$$

$$\dot{\epsilon} \cdot \dot{\epsilon} \neg \cdot \sim \check{\emptyset} \cdot \neg$$

$$\dot{\epsilon} \cdot \neg \cdot \dot{\epsilon} \sim \check{\emptyset} \cdot \neg \text{ ID}$$

$$\dot{\epsilon} \neg \cdot \check{\emptyset} \sim \dot{\epsilon} \cdot \neg$$

$\check{\neg} \cdot \check{\epsilon} \sim \check{\epsilon} \cdot \neg$ ID

$\check{\neg} \equiv$

\emptyset

NB($\check{\epsilon}$) is a form of Notion that I derived from *Buddhist scriptures*, and such a form is not found in Hegel's philosophy. Although Hegel's philosophy includes the form of the *dual self* $\check{\epsilon}$, this dual self $\check{\epsilon}$ is not considered *equivalent* to negation \neg . Therefore, in Hegel's logic, only $\neg \cdot \neg$ and $\check{\epsilon} \cdot \check{\epsilon}$ can be transformed into affirmation \equiv .

However, from a Buddhist perspective, the self does not possess this kind of *ultimate substantial nature*. Thus, we can consider the self $\check{\epsilon}$ as *equivalent* to negation \neg , allowing us to view affirmation \equiv as transformed from $\neg \cdot \check{\epsilon} \sim \check{\epsilon} \cdot \neg$.